TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 6, 2010

(b) (6), (b) (7)(C)
PRESIDENT
PORT ARTHUR CHEMICAL & ENVIRONMENTAL SERVICES LLC
PO BOX 218
PORT ARTHUR TX 77641-0218

Re: Permits by Rule Registration Number: 86173
Port Arthur Chemical & Environmental Services
Port Arthur, Jefferson County
Regulated Entity Number: RN105156111
Customer Reference Number: CN603423427

Dear (b) (6), (b) :

This is in response to your request to register the pending installation of the oil recovery process under Title 30 Texas Administrative Code § 106.183, 106.261, 106.472 (30 TAC § 106.183, 106.261, 106.472) at your facility in 2420 Gulfway Dr, Port Arthur, Jefferson County. The information submitted in support of your request has been evaluated and found to show that the installation of the process requires permitting review in accordance with 30 TAC Chapter 116.

The reasons for requiring a permit or permit amendment are described below:

As stated in 106.4 (b), no person shall circumvent the full permit process. You have submitted a permit application for facilities/operations which are already constructed and operating and this process should also be in that action. Additionally as stated in 106.4(c), the emissions from the facility shall comply with all rules and regulations of the commission and with the intent of the TCAA, including protection of health and property of the public, and all emissions control equipment shall be maintained in good condition and operated properly during operation of the facility. The number of complaints, confirmed nuisance conditions, poor compliance history, the unused but relied on control equipment, unregistered emissions, unregistered operations, insufficient supporting information for the emissions claimed, failure to meet certified emission representations and the failure to follow your certified operational representations does not meet 106.4(c).

There are numerous deficiencies for information related to your facilities and operations. Based upon previous operation of this equipment at your Houston site, there is still the outstanding concern of the raw oil containing sulfur compounds. As noted in the previous registration requests for this site, there is a substantial concern that mercaptans and hydrogen sulfide are being emitted from your existing facilities and these new operations. The presence of methyl and ethyl mercaptans or hydrogen sulfide requires a minimum 500' distance to the nearest receptor from the tank under 106.472 (9). Additionally you may review the TCEQ Storage Tank Construction Under Permit By Rule Memo dated September 1, 2006 available at: http://www.tceq.state.tx.us/assets/public/permitting/air/memos/tank_under_pbr06.pdf.

TECHNICAL REVIEW: AIR PERMIT BY RULE

DEFICIENT

Permit No.:	86173	*Company Name:*	Port Arthur Chemical & Environmental Services, LLC	*APD Reviewer:*	(b) (6), (b) (7)
Project No.:	158011	*Unit Name:*	Port Arthur Chemical & Environmental Services	*PBR No(s).:*	106.183, 106.261, 106.472

GENERAL INFORMATION			
Regulated Entity No.:	RN105156111	**Project Type:**	Permit by Rule Application
Customer Reference No.:	CN603423427	**Date Received by TCEQ:**	June 3, 2010
Account No.:		**Date Received by Reviewer:**	June 5, 2010
City/County:	Port Arthur, Jefferson County	**Physical Location:**	2420 Gulfway Dr

CONTACT INFORMATION					
Responsible Official/ Primary Contact Name and Title:	(b) (6), (b) President	**Phone No.:** **Fax No.:**	(b) (6), (b) (713) 676-1676	**Email:**	(b) (6), @CESENVIRONMENTAL.COM
Technical Contact/ Consultant Name and Title:	(b) (6), (b) (7) (C)	**Phone No.:** **Fax No.:**	(b) (6), (b)	**Email:**	(b) (6), @CESENVIRONMENTAL.COM

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there affected NSR or Title V permits for the project?	X		Pending NSR 86587
Is each PBR > 25/250 tpy?		X	
Are PBR sitewide emissions > 25/250 tpy?		X	
Are there permit limits on using PBRs at the site?		X	
Is PSD or Nonattainment netting required?		X	
Do NSPS, NESHAP, or MACT standards apply to this registration?		X	
Does NOx Cap and Trade apply to this registration?		X	Not a major source in Jefferson County.
Is the facility in compliance with all other applicable rules and regulations?		X	

DESCRIBE OVERALL PROCESS AT THE SITE

The existing site is operated under PBR 86173 (certified) for the production of sodium hydrosulfide (NaSH) and naphthenic acid. The company had a name change in November 2008. The previous name was CES Environmental Services Inc. The site has a permit application for proposed Permit 86587 submitted October 13, 2008 for processing aqueous caustic streams to produce an aqueous sodium hydrosulfide (NaSH) product stream out of two production lines. Each permit production train starts with a 45,000 gal horizontal tank serving as a reactor vessel (RV1 or RV2).

DESCRIBE PROJECT AND INVOLVED PROCESS

The company has submitted PBR certified paperwork for the oil recovery process but did not sign the PI-7_CERT. The feed material is received from off site via tanker truck and transferred to storage in any or all three 20,000 gallon horizontal tanks (OT-1, OT-2, and OT-3) prior to processing. The material is water containing some hydrocarbon distillate oil. Some solids may also be present. The material in these tanks may be allowed to phase separate during storage prior to processing. Since the concentration of the oil, water and solids is expected to vary, some degree of oil phase separation is anticipated. VOC emissions have been estimated based on a 100% oil concentration. The processing begins by transferring the feed stream to a 6,000 gallon horizontal tan} (OT-4) where it is heated to help facilitate phase separation during the centrifuge process. One 1.2 MMBtu/hr natural gas or LPG (propane) fired boiler is used to provide indirect process heat using steam or hot water. The heated feed stream is pumped into the enclosed centrifuge which uses differential surface rotation to separate the oil, water and solid phases into three discharge streams. The oil is discharged into a 450 gallon receiving vessel or tank compartment (QT-5) and the water is discharged to another equivalent size vessel or compartment (DT-6) for storage. The solids exit the centrifuge through a bottom opening and drop into a 3-cubic yard open-top hopper box. The recovered oil and wastewater are pumped to tanker trucks for shipment off-site. The solids hopper is loaded onto a truck and shipped off-site for disposal.

The company states that emissions from the oil recovery process are calculated based on several process steps. The feed stream contains varying amounts of water, oil and solids. The emissions were calculated based on a 100% oil concentration, except for the separated wastewater generated by the centrifuge. Emissions from wastewater storage and handling are based on an oil concentration of 10% by weight.

The company calculated the tank emissions using methods specified in AP-42 for vertical and horizontal vessels. PACES stated that it has the capability, and retains the option, to utilize vapor balancing or to route the storage tank vents to the existing facility flare, the storage loss emissions used as the basis for this PBR assume no controlled reduction efficiency.

The company states that the centrifuge operates with a continuous liquid feed. However, there may be a displacement of a small amount of vapor during the initial charge. Emissions from this initial charge were estimated using the ideal gas law equation and the approximate volume of the chamber. While the centrifuge is enclosed during operation, the seals in the casing that emit drive rotation are potential sources of fugitive leaks. Additionally, the solids discharge opening is a potential source of fugitive vapor loss. Emissions from these sources were estimated using the TCEQ' Equipment Leak Fugitive Factors (pump seal factors for the casing seals and the open-ended line factor for the solids discharge port). Finally, the solids that accumulate in the open-top hopper are also a potential source of emissions. Potential emissions from oil residue contained in the solids were estimated using an EPA equation for evaporation rate from exposed liquid surfaces. Although not a liquid, the calculations conservatively assume a liquid surface.

TECHNICAL REVIEW: AIR PERMIT BY RULE

DEFICIENT

Permit No.:	86173	*Company Name:*	Port Arthur Chemical & Environmental Services, LLC	*APD Reviewer:*	(b) (6), P.E.
Project No.:	158011	*Unit Name:*	Port Arthur Chemical & Environmental Services	*PBR No(s).:*	106.183, 106.261, 106.472

	or Other Pollutants	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
OT-1,2,3 / Oil & Water feed storage tanks		0.6212 5.0431 0.6212	0.0380 0.7127 0.0380												
OT-4 / Oil & Water feed storage tank		3.9997	0.6888												
C-1 / Centrifuge		0.0974	0.3675												
OH-1 / 3 cubic yard solids hopper		0.1241	0.5426												
OH-5 / 450 gal oil receiver		0.2837	0.6736												
OH-6 / 450 gal wastewater receiver		0.00026	0.00033												
OLDG / Loading		3.3556	0.4641												
OF-1 / Fugitives		0.0855	0.2301												
/ Boiler		0.0065	0.0283	0.1176	0.5151	0.0988	0.4328	0.0089	0.0392	0.0089	0.0392	0.0007	0.0031		
TOTAL EMISSIONS (TPY):		5.0431	3.785	0.1176	0.5151	0.0988	0.4328	0.0089	0.0392	0.0089	0.0392	0.0007	0.0031		

MAXIMUM OPERATING SCHEDULE:	**Hours/Day**	24	**Days/Week**	7	**Weeks/Year**	52	**Hours/Year**	8760

SITE REVIEW / DISTANCE LIMIT	Yes	No	Description/Outcome	Date	Reviewed by
Site Review Required?		X			
PBR Distance Limits Met?		X	The company claims 200' exists to the nearest property line and 250' to the nearest receptor. Supporting documentation of these facts is not present in the submittal.	June 23, 2010	John C. Gott, P.E.

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)
PRINTED NAME:	(b) (6), (b) P.E.	(b) (6), P.E.	(b) (6), (b) P.E., Manager
DATE:	June 28, 2010	June 29, 2010	~~June 29, 2010~~ July 30, 2010

BASIS OF PROJECT POINTS	POINTS
Base Points: 2 PBRs	2.0
Project Complexity Description and Points: *add PBR, complex writeup* Communication (3 conferences with manager, 3 phone calls and email) processing <30 days	0.5 1.0 1.5 0.25
Technical Reviewer Project Points Assessment:	5.25
Final Reviewer Project Points Confirmation:	

07/30/2010 ----------NSR IMS - PROJECT RECORD ----------

PROJECT#: 158011 PERMIT#: 86173 STATUS: PENDING DISP CODE: D
RECEIVED: 06/03/2010 PROJTYPE: REVISION AUTHTYPE: PBR ISSUED DT: 8/6/10
RENEWAL:
PROJECT ADMIN NAME: RESUBMITTAL OF VOIDED PROJECT 157384
PROJECT TECH NAME: OIL RECOVERY PROCESS

Assigned Team: RULE REG SECTION

5.25
(b) (6), (b) (7)(C)

STAFF ASSIGNED TO PROJECT:

(b) (6), (b) (7)(C) - REVIEWR1_2 - AP INITIAL REVIEW
GOTT , JOHN - REVIEW ENG - RR TEAM

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)
ISSUED TO: PORT ARTHUR CHEMICAL & ENVIRONMENTAL SERVICES LLC
COMPANY NAME: Port Arthur Chemical & Environmental Services, LLC
CUSTOMER REFERENCE NUMBER: **CN603423427**

REGULATED ENTITY/SITE INFORMATION
REGULATED ENTITY NUMBER: **RN105156111** ACCOUNT:
PERMIT NAME: PORT ARTHUR CHEMICAL AND ENVIRONMENTAL SERVICES

REGULATED ENTITY LOCATION: 2420 GULFWAY DR
REGION 10 - BEAUMONT NEAR CITY: PORT ARTHUR COUNTY: JEFFERSON

CONTACT DATA

CONTACT NAME: (b) (6), (b) (6), (b) CONTACT ROLE: RESPONSIBLE OFFICIAL
JOB TITLE: PRESIDENT ORGANIZATION: PORT ARTHUR CHEMICAL & ENVIRONMENTAL SERVICES LLC
MAILING ADDRESS: PO BOX 218 , PORT ARTHUR, TX, 77641-0218
PHONE: (b) (6), (b) (7) Ext: 0
FAX: (713) 676-1676 Ext: 0
EMAIL:MBOWMAN@CESENVIRONMENTAL.COM

CONTACT NAME: (b) (6), (b) (6), (b) CONTACT ROLE: TECHNICAL CONTACT
JOB TITLE: ORGANIZATION: PORT ARTHUR CHEMICAL AND ENVIRONMENTAL SERVICES LLC
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